Chapter

8

REMOTE COMMUNICATIONS OUTLET REQUIREMENTS

The provision of remote communications outlet (RCO) ties has in the past been the responsibility of the FAA. These facilities have been established to meet the regional requirements for terminal and en route air traffic control and flight services. Existing RCO facilities within Arizona are reviewed in Chapter 2.

A precedent for the establishment of remote radio access by private industry began in the early 1980's. The first remote radio access system was developed by ARINC, a company owned by the commercial air carriers to respond to internal airline operations communications. The remote radio access system was used as an alternative to dedicated voice networks.

The technology applied to the needs of commercial airlines was first tested at two general aviation airports, one each in Maryland and Virginia, for the issuance of IFR clearances. Results indicated that this technology could meet the needs of the general aviation community and the air traffic control facility at a lesser cost than conventional federally-installed RCO facilities. The FAA has accepted the concept, certified the equipment and additional facilities have been installed at airports across the country. The facility, referred to generically as a ground communications outlet (GCO) addresses the needs at low activity airports for clearance delivery and closure of flight plans. The GCO is intended for use on-airport and in the airport terminal airspace area.

The GCO functions as follows:

1. A microphone key click signal from the cockpit triggers a dial-up, pre-programmed telephone call to the appropriate air traffic control facility using an interface device between the VHF radio and the public telephone network.

2. The pilot then receives the necessary air traffic control instructions without needing to leave the aircraft.

3. When approaching the airport to land, the pilot need not cancel his/her flight plan in the air, but can use the GCO when on the ground and before shutting down the aircraft.

4. The communication remains connected until the air traffic control facility terminates the call.

The GCO also allows air traffic control to enhance the safety of aircraft movement by increasing the efficiency of the use of airspace surrounding outlying airports.

Airports within Arizona to be equipped with a GCO were selected on the following basis:

1. The airport should have or plan to have an instrument approach procedure.

2. There should be a sufficient number of instrument operations to payback the establishment of the GCO within one year. The costs for the telephone line and calls are borne by the local airport, but not included as part of the payback calculation.

3. Airports currently provided with a federal RCO or RTR were excluded from the analysis.

Based on an estimated establishment cost of $12,000 and the value of time involved to place telephone calls to the air traffic control facility before and after each instrument takeoff and landing ($25 per hour and a time savings of one-half hour), it was determined that the airport should have an activity level of approximately 2,000 annual instrument operations during the 20-year planning horizon. Those 11 airports meeting this GCO establishment criterion are noted below. It is recommended in Chapter 11 that all GCO units be acquired in a block purchase to take advantage of a lower unit cost and installed in the initial stage of facilities improvements. Further, existing and future activity levels at these and other system airports should be reviewed to assure that they meet the above threshold values prior to funding the GCO units.

Avi Suquilla
Avra Valley
Casa Grande Municipal
Chandler Municipal
Cochise College
Cottonwood Municipal
Eloy Municipal
Lake Havasu City Municipal
Laughlin/Bullhead International
Memorial Airfield
Stellar Airpark